KASHI HEALTH

Delivering More Than A Test Result

ApoE
Genetic Analysis Report

PATIENT:

Sample, Ashley

DOB: 09/27/1953
Gender: Female

ORDERING PROVIDER:

Jean Wizard, MD
Wellness Central Clinic
5167 Leptin Heights Road
Phoeland, AF 97429

LABORATORY INFORMATION:

Lab ID Number:	123123123ABC
Sample Collection Date:	01/23/17
Sample Arrival Date:	01/24/17
Report Date:	01/26/17

GENE MARKER	TEST RESULT	RISK ALLELE	ASSOCIATION	COMMENT
APOE Cardiovascular	E4/E4	●	Lipid transportation and Cholesterol levels	Significantly increased risk for cardiovascular disease, elevated triglycerides, total cholesterol and LDL
APOE Alzheimer's Disease	E4/E4	●	Alzheimer's Disease Risk	People with this variant have and up to 12 fold risk for Late Onset Alzheimer's Disease with an earlier age of disease onset[1]

ASSESSMENT OF RISK TABLE

RESULT	E2/E2	E2/E3	E2/E4	E3/E3	E3/E4	E4/E4
CARDIAC	Decreased Risk except for those with hyperlipoproteinemia*	No Increased Risk	No Increased Risk	No Increased Risk	Increased Risk	Significantly Increased Risk
ALZHEIMER'S DISEASE	Lowest Risk	Decreased Risk	Increased Risk	No Increased Risk	Increased Risk	Significantly Increased Risk

In the brain, ApoE is a protein involved in clearing harmful plaques that form around nerve cells. These plaques are a hallmark of Alzheimer's disease[3,4], and consist of damaged proteins called amyloid-β (Aβ) which stick together to form the toxic plaques.

There are three possible types of ApoE protein, called E2, E3 and E4.[5,6] The E2 form is the most effective at removing Aβ plaque from the brain and subsequently is protective against Alzheimer's disease (AD). However, the E4 form of the ApoE protein is not very effective at removing Aβ plaque and carries an increased risk for developing AD.[2,7,8]

* For the majority of people, the E2 ApoE variant confers a decreased risk of cardiovascular disease and promotes a more optimal cholesterol profile. Having two copies of the E2 variant generally provides the most protection; however, those with two copies of E2 (E2/E2) are at a slightly increased risk (less than 10%) for a rare hereditary condition called hyperlipoproteinemia (III HLP).[10] People with III HLP have high total cholesterol, LDL and triglycerides, putting them at risk for atherosclerosis and cardiovascular disease. Overall, those who carry E2 are likely at a decreased risk for heart disease but should monitor their cholesterol levels yearly to check for III HLP.[9,10]

E4 allele carriers are at an increased risk for cardiovascular disease, elevated triglycerides, elevated total cholesterol and elevated LDL .[11]

Disclaimer: It is important to understand that carrying the risk allele does not mean that a person will develop a disease. Genetic testing alone is not predictive of disease because there are significant health and environmental factors that overlay genetic disposition. Results should be interpreted in the light of other considerations such as environmental factors, age, ethnicity and other health conditions.

This test detects only specific targeted mutations and there is a possibility that other genetic mutations are present that are not detected by this test. The content of this report is provided for information purposes only not as a diagnostic tool, and does not supersede the judgement of the medical provider. Cardiovascular and Cognitive health is affected by many non-genetic factors in addition to genes, and this test is not a substitute for a comprehensive consideration of all factors that influence the maintenance of a healthy cardiovascular system or cognitive function. This test is not FDA approved but its performance characteristics have been established and maintained by Kashi Clinical Laboratories under CLIA and CAP compliance.

Reported and Reviewed By:

Zahra Mehdizadeh Kashi, Ph.D., HCLD
CEO and Laboratory Director